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GEOGRAPHICAL NOTES.

BY

GEO. C. HURLBUT, *Librarian.*

A WORLD'S EXHIBITION AT AMSTERDAM.—There will be opened at Amsterdam, in May, a World's Exhibition of Hotel Equipment and Travel.

The Committee of Advice to Group XI (Geographical Department), under the presidency of the distinguished geographer, J. Æ. C. A. Timmerman, makes the following announcement:

> It is therefore our purpose to form, as far as possible, a complete collection of everything illustrative of travelling, in its historical development.
>
> While exhibiting therefore all those modern means of conveyance, which are at present more and more nearing perfection, ample space will be reserved for exhibits representing the ancient and original means of conveyance and auxiliaries of travelling; as well as for ancient maps, charts, atlases, itineraries and illustrated works, accounts of travels and journeys, logbooks, instruments, models, drawings, etc.

SOCIÉTÉ DES AMIS DES EXPLORATEURS FRANÇAIS.—This society, authorised by decree of July 20, 1894, is established in Paris, at the house of the *Société de Géographie*, 184, boulevard Saint Germain.

Membership is open to every person who has attained the age of 21 years, without distinction of sex or nationality, on payment, once for all, of 100 francs.

The Society does not propose to found or to direct any scientific publication; nor will it form a library or make collections. Books, maps, photographs, or other documents, presented to it, will be made over to the *Société de Géographie.*

Specimens of natural history, ethnographical, and other special collections will be delivered to the State museums.

Gifts of instruments, arms, camping utensils, and other articles for the use of travellers and explorers, will be accepted.

Assistance will be rendered to travellers according to the nature of the case: by the loan of instruments, etc.; by subsidies to facilitate the immediate use of results, such as scientific observations, itineraries, and the like; by participation in the cost of production of books, maps, drawings and pictures; and finally, by advances which shall leave the explorer free to care for his health, without anxiety as to the means of existence.

LES NOUVELLES GÉOGRAPHIQUES, hitherto published in separate form as a supplement to *Le Tour du Monde*, ceased with the year 1894. Its place is supplied by *À Travers Le Monde*, which appears under the same cover with each number of *Le Tour du Monde*, but with its own paging.

CASSINI DE THURY.—The *Société de Topographie de France* has undertaken to raise a monument to Cassini de Thury, the author of the first great topographical map of France, and to publish a detailed account of his labours. A considerable sum of money has already been collected for the monument, and the *Société* has addressed to the geographical societies throughout the world a list of questions for studies on the history, progress and completion of the great work, its relation to similar enterprises in France and in other countries, etc.

THE ITALIAN GEOGRAPHICAL SOCIETY, on the 1st of January, divided its publication into two parts, the *Bollettino*, to be issued 12 times in the year, and resembling in character and contents the *Comptes Rendus* of the Paris Society and the *Verhandlungen* of the Berlin *Gesellschaft;* and the *Memorie*, which will contain the longer papers communicated to the Society, and will appear from time to time, as occasion serves.

A BELGIAN ANTARCTIC EXPEDITION, planned by Lieut. de Gerlache, is in process of organization at Brussels, but cannot take definite form until the return of M. de Gerlache from a sealing voyage to Jan Mayen on board the *Castor*, a Norwegian vessel which left Sandefjord early in March.

A SPECIAL NUMBER (13) of the *Annales de Géographie* is devoted to a Bibliography of the year 1893. This useful list includes pamphlets and articles published in magazines, as well as books and maps, arranged in two divisions: one embracing Physical Geography, Ethnography, Oceanography, and other general subjects; the other, works on the different parts of the world and their subdivisions. Occasional critical remarks add to the value of the record.

In a multiplicity of details there is always room for error, but it is, surely, by a perverse chance that, on p. 47, a note on Judge Daly's article, *Have we a portrait of Columbus*, makes him say in French the exact contrary of his plain statement in English. Alluding to the Lotto portrait, Judge Daly wrote:

> It is not a satisfactory picture upon which to found the belief that it is a likeness of Columbus, and it is greatly to be regretted that the United States Government, in commemoration of the Centennial year, should have stamped it on two millions of

the silver currency of the country, and engraved it upon the postage stamps as a reliable representation of the person of the great discoverer. (*Bulletin Am. Geog. Soc., 1893, No. 1, p. 63.*)

It should seem to be impossible to misunderstand the sense of this passage, but in the note referred to the feat is done in this style:

> *Of these (reputed portraits) there is one, however, which he (Daly) regards as more verisimilar than the others: it is the one which served as a model for the postage stamps specially issued on the occasion of the 4th centenary.

THE SOURCE OF THE MISSISSIPPI.—The *Revue de Géographie*, for January, publishes an article by M. E. Levasseur,† of the Institute, based upon Mr. J. V. Brower's volume, *The Mississippi River and Its Source.* This article is necessarily a résumé of the data brought together in Mr. Brower's history of the river and its exploration; and with this work, as M. Levasseur says, the debate concerning the source of the Mississippi was brought to a close. None the less, he briefly notices Captain Glazier's long-continued and temporarily successful effort to assume the character of a discoverer. The paper closes with a philosophical reflection:

> Mr. Brower's exploration leaves no room for controversy. Glazier's attempt will have had the good result of hastening the conclusion and of enriching geography with the definitive map of the cradle of one of the world's great rivers. In this regard social sciences may envy the natural sciences. How happy would not the former be thus to put an end to discussion, and to enlighten public opinion by the demonstration of the fact, without leaving any dark corner in which error could still abide, and from it come forth into renewed activity!

THE ALASKA BOUNDARY MEASUREMENT IN 1893 is the subject of a paper by A. Lindenkohl, of the U. S. Coast and Geodetic Survey, in *Petermanns Mitteilungen*, Band 40, No. XII.

The work to be done was the survey of a strip of the coast, 30 geographical miles in width, between Portland Inlet on the south and Lynn Channel on the north. This strip covers the territory claimed by the United States as defined in the Anglo-Russian treaty of the year 1825. The task was divided into two parts, the Americans devoting themselves to the survey of the river valleys and the Canadians to that of the higher ground.

Three streams, rising in British Columbia, find their way to the sea across this district: the Unuk, the Stikine and the Taku. Of these the Unuk, the most southerly, is also the least important. It flows south-westerly into Burrough Bay at the head of Behm Channel. In June, 1893, its current was so strong that it was with the greatest difficulty the canoes made head against it. Ordinarily the Unuk is cut up into narrow channels, separated by islands and sand banks, and its valley, which has a width of from a half-mile to a mile, is thickly wooded with alders, poplars and willows. The steep sides of the valley rise to an elevation of 3,000 feet and are clad with pines and cedars, and the crest of the mountains, at a distance of about two miles from the valley, reaches a height of from 4,000 to 6,000 feet.

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*Il y en a un cependant qu'il considère comme plus vraisemblable que les autres: c'est celui qui a servi de type pour les timbres-poste spécialement édités à l'occasion du 4e centenaire.

†M. Levasseur's paper is an extract from the *Bulletin de géographie historique et descriptive*, communicated to the *Revue de Géographie* by authorization of the Minister of Public Instruction.

The Stikine is perhaps, after the Yukon, the best-known and most important river of Alaska. In 1863 it was navigated only by the Indian canoes, and in those days many Indians and white men lost their lives on their way to the gold-diggings in the so-called Little Cañon, 80 miles from the mouth of the river. Now there is during the summer months regular steamboat communication between Port Wrangell, at the river-mouth, and Telegraph Creek, 45 miles above Little Cañon, and a pack-road unites this place with the head of Dease Lake, the central point of the Cassiar gold-district. From Telegraph Creek the Stikine flows first in a south-westerly, and then in a southerly direction, as far as the Great Bend, 25 miles above the mouth; it then turns to the west and finds its way to the sea through the Coast Mountains, which are between 6,000 and 7,000 feet in height. The valley of the river is nearly two miles wide, cut up by channels and heavily timbered, like that of the Unuk. It is shut in on both sides by steep walls of rock, covered with forests up to 2,500 feet and rising in regular slope from 500 to 1,500 feet beyond that elevation. The line of perpetual snow varies between 3,000 and 4,000 feet, according to the direction and inclination of the surface, and many of the steep higher points are bare of snow. Visible in every direction are sharp peaks, of from 5,000 to 10,000 feet in altitude, and Kate's Needles, the highest of five that were measured, was found to be 2,912 metres (9,554 feet) above the sea. The glaciers of the lower Stikine come down to the valley and almost to the sea-level. Four of these, on the north-western bank of the river, are named in order from the mouth up-stream, Popoff Glacier, Great Glacier, Mud Glacier and Hood Glacier; and there are many others on both sides of the river. Several members of the expedition expressed the opinion that every stream in this region had its origin in a glacier, and both tradition and observation confirm the belief that there is a steady retreat of the ice-masses.

The climatic conditions were peculiar. Those of the party who were stationed at the mouth of the river had to endure almost uninterrupted rainy weather, while those on the boundary, only 30 miles away in a straight line, enjoyed warm weather with a clear sky; the explanation being that the sea-breeze parts with its moisture in passing over the Coast Range.

Here, as elsewhere in Alaska, fish abound, but, with the exception of brown and black bears, there is very little game. The land is divided into hunting districts, allotted to the various Indian tribes, and white men are forbidden to kill game within these precincts.

Every handful of earth from the river-bed shows traces of gold, and there was a time when the placer-washings were profitable, but now the worker could not make a dollar a day.

The Taku is not much inferior to the Stikine in length and volume of water, but it has attracted little attention.

It is formed by the junction of a northern and a southern branch, and flows in a south-westerly direction, for more than 40 miles as a true river, and for 18 as the fiord-like Taku Inlet, and empties into Stephens Passage, not far from the little city of Juneau. The survey included about half the course of this river, from the mouth to the junction of the two branches. The characteristics of the valley are similar to those of the Stikine, and there was no difficulty in ascending or in descending the river, the strong sea-breeze blowing constantly up-stream and the rapid current helping the descent. Dr. C. Willard Hayes, who was geologist of the Yukon Expedition in 1891, believed that light-draught steamers could ascend to the mouth of the southern branch, and that a pack-road, made from that point to the Ahklen Lake, and thence to the Yukon, would offer decided advantages over the one now in use by Chilkoot Pass.

The mountains in sight from the Taku valley appeared to be somewhat lower than those seen from the Stikine.

Four large glaciers descend to the level of the valley on Taku Inlet and the river; these are the Windham, the Foster, and the Twin glaciers on the north side, and the Wright on the south; and the north-western angle of the Inlet is generally filled with floating ice from the Foster glacier. These would all attract much more attention, were they not in the immediate vicinity of the famous Muir glacier, but the magnificent ice-walls of the Foster are within a pistol-shot of the sightseers on the excursion steamer.

Geologically, the greater mass of the Coast Range is composed of grey granite rocks, containing quartz, orthoclase, biotite and hornblende.

Mr. Lindenkohl's paper closes with some particulars concerning the measurement of Mt. Logan. This peak is in the British territory, 43 kilometres (26.72 miles), north-east of Mt. St. Elias, in N. Lat. 60° 34′ 1″, W. Long. 140° 23′ 49″. Two independent measurements were made, differing only 17 feet, and the accepted elevation is the mean of the two.

The altitudes of eight mountains were computed, as follows:

Mt. Logan, 19,514 ft. (5,948 metres).
Mt. St. Elias, 18,015 ft. (5,491 metres)
* Mt. Vancouver, 15,665 ft. (4,477 metres).
Mt. Cook, 13,759 ft. (4,194 metres).
† Mt. Augusta, 16,920 ft. (4,243 metres).
Mt. Newton, 13,778 ft. (4,199 metres).
‡ Mt. Huxley, 11,070 ft. (3,631 metres).
§ Mt. Hubbard, 10,068 ft. (3,373 metres).

MR. PEARY'S WORK IN GREENLAND.—M. Charles Rabot, in an article on Recent Arctic Explorations, printed in the *Comptes Rendus* of the Paris Geographical Society (1894, pp. 428–437), briefly reviewed, in a strangely unworthy spirit, Mr. Peary's two expeditions to Greenland. Of the first (1891–1892) M. Rabot had this to say:

‖ Two accounts of this exploration have been published : one in the *Geographical Journal,* compiled from Mr. Peary's notes; the other by his only companion, Mr. Astrup, in the Year Book (No. 4) of the Christiania Geographical Society. These two documents and the maps which accompany them present contradictions which singularly weaken the authority of the journey. The map in the *Geographical Journal* establishes the insularity of Greenland. . . . Astrup's map is completely different. . . Moreover, Astrup's report formally contradicts that of Mr. Peary. "We recognised," writes the former, "the probable extension of Greenland towards the north."

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* 15,665 feet=4,775 metres; 4,477 metres=14,689 feet.

† 16,920 feet=5,157 metres; 4,243 metres=13,921 feet.

‡ 11,070 feet=3,374 metres; 3,631 metres=11,913 feet.

§ 10,068 feet=3,069 metres; 3,373 metres=11,066 feet.

‖ Sur cette exploration deux relations ont été publiées: l'une dans le *Geographical Journal* rédigée d'après les notes de M. Peary, la seconde dans *l'Annuaire* (IV) de la Société de Géographie de Kristiania écrite par M. Astrup, l'unique compagnon de M. Peary dans cette expédition. Ces deux documents et les cartes qui les accompagnent présentent entre eux de graves contradictions qui affaiblissent singulièrement l'autorité du voyage. La carte du *Geographical Journal* établit l'insularité dù Grönland. . . . La carte d'Astrup est complètement différente. . . . D'autre part, la relation d'Astrup contredit formellement celle de M. Peary. "Nous avons reconnu, écrit-il, l'extension probable du Grönland vers le nord." . . .

M. Rabot must read and judge for himself; but some obvious reflections should have occurred to him, when he undertook to weigh the testimony before him. Mr. Peary, a man of proved capacity and honour and experience, was the leader of the expedition and responsible for its result. There was no responsibility laid upon Mr. Astrup. He was free, if no scruple withheld him, to utter himself in any way that seemed likely to bring a temporary distinction to so young a man. He chose his time well, for his report and map were published when Mr. Peary was again in the frozen North, far beyond the reach of communication for an indefinite period; and this should have given occasion for doubt, if not for suspicion, in a critical mind.

M Rabot quotes, with peculiar simplicity, the words of Astrup:

> We recognised the probable extension of Greenland towards the north.

Where and when did Mr. Astrup receive his authority to put these words into Mr. Peary's mouth?

M. Rabot's account of the expedition of 1893–1894 is even less creditable to him. He describes the attempt on the inland ice and its failure, and adds:

> * During this time Mr. Astrup, who had followed Mr. Peary in this second journey, explored in a sled the north-west coast of Greenland as far as Melville Bay in the south, and surveyed 300 kilometres of coast previously unknown. This topographical survey is the principal geographical result of the expedition. . . .
>
> In this expedition, as in the preceding one, Mrs. Peary accompanied her husband, and a woman cook was also of the party. This circumstance did not contribute to maintain harmony among the explorers. On the other hand, the provisions were composed, in part, of spoiled canned goods, and this negligence produced the most regrettable consequences.
>
> The checks encountered by the American polar explorations are generally due to faults of organization and equipment. . . .

However it may be with the Americans, it is certain that M. Rabot's misstatements are due to rashness and an unfortunate habit of mind. His errors have been corrected by Prof. William Libbey, Jr., in a letter printed in the *Comptes Rendus* for 1895, pp. 28–30, to the following effect:

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* Pendant ce temps, M. Astrup, qui avait suivi M. Peary dans ce second voyage, explorait en traîneau le littoral nord-ouest du Grönland jusqu'à la baie Melville dans le sud, et relevait 300 kilomètres de côte jusqu' ici inconnus. Ce levé topographique est le principal résultat géographique de l'expédition. . . . Dans cette expédition, comme dans la précédente, Mme. Peary accompagnait son mari; une cuisinière faisait également partie de la mission. Cette circonstance n'a pas eu pour effet d'entretenir l'harmonie entre les explorateurs. D'un autre côté, les approvisionnements étaient, en partie, composés de conserves avariées et cette négligence a eu les conséquences les plus fâcheuses.

C'est généralement à des vices d'organisation et d'équipement que sont dûs les échecs des explorations polaires américaines. . . .

> It would be premature to express a positive judgment with regard to the contradictory opinions uttered by Lieut. Peary and Mr. Astrup; but I should incline to accept, without much hesitation, those of Lieut. Peary concerning the insular nature of Greenland, for he is a man of great experience and competent in geographical observations.
>
> I should accept with even less confidence the points indicated by Mr. Astrup on his chart of Melville Bay. They are based on too small a number of angles and taken from only two positions in the bay, towards the shore which surrounds it. The panoramic views which he is to publish are a presentation somewhat similar to the shape of the coast, but nothing more. This work, performed after the return from the expedition to the interior glacier, is confined to Melville Bay alone and gives no idea of the northwest coast, as the article (of M. Rabot) affirms. Furthermore, it is not correct to say that this document is the only one, or even the most important one, of the expedition; it is, on the contrary, decidedly inferior to the thoroughly accurate work of Lieut. Peary on Inglefield Gulf, of which he has made the first complete chart. . . .
>
> I regret that the author of the article expressed himself as he has done concerning the presence of Mrs. Peary and the woman who accompanied her to take care of the little child, which was not yet born when she left the United States. Mrs. Peary showed herself much more capable of performing the voyage than several members of the expedition. Far from being an obstacle, her presence was an encouragement *until after* the return from the inland ice. It was then that the men began to show their discontent, and the animosity of some among them went so far that they would no longer eat at the same table with Mr. and Mrs. Peary. At the last, a conspiracy was formed with the intention of *abandoning* Lieut. Peary, and this would have succeeded, if he had not persuaded one of the malcontents to remain with him and his coloured man, Matt. Henson.
>
> So far from the provisions having been bad, there was an abundance of nourishing food, as I know from having tasted it. It was as good as that of our own ship, and we did not find any fault. No polar expedition has been better equipped than that of Lieut. Peary. . . .

GREENLAND FOR ART.—Julius von Payer, the surviving commander of the Austrian expedition which discovered Franz Josef Land, has planned what he calls an Artistic Expedition to the North Pole, by which is to be understood the East Coast of Greenland.

Painters are asking, he says, for new material on which to exercise their art, and he has determined to lead them to the wealth of beauty and of colour in the far north, where the picture of nature was ever entrancing to him during the years he spent in those regions. His plan, as described in the *Geographical Journal* for February, is to build a steamer of 400 tons, to be manned by Dalmatian seamen, with three officers, besides experts, engineers, Tyrolese marksmen, two landscape-painters, one animal-painter, and a photographer. A studio will be erected at winter-quarters, and movable glass studios for use on deck and in special localities will also be provided; all furnished with means of heating and with electric light. Besides the studios, there will be a captive balloon. Payer's experience is that, even with a temperature of 50 degrees below zero, drawing can be done by the hour, and by moonlight or the northern light, as well as by day. The studios will afford protection for painting. Meteorological and magnetic observations will be made by the naval officers, while the naturalist collects specimens and the Tyrolese take care of the game.

Cape Franklin, at the entrance of Kaiser-Franz-Josef Fiord, recommends itself as the finest winter-quarters.

The expedition, which is to be sent out by Austria-Hungary, will start in June, 1896, if all goes well. The cost is partly covered, and Payer's enthusiasm is great enough, it may be hoped, to do the rest. His expedition, whatever may be thought of its value for art, must add to our knowledge of Greenland.

AN EXCURSION IN LABRADOR.—Mr. Charles E. Hite describes, in the *American Naturalist* for February, some explorations made in Labrador in the summer of 1894 by himself and Messrs. Howard Bucknell, G. H. Perkins and G. M. Coates. The party left New York in the steamer *Miranda*, which met with an accident and put in for repairs at Cape Charles, on the southern coast of Labrador. Here a few days were spent in making collections. The country is composed of low hills of granite, syenite and hornblende and there are remarkable examples of anticlinal and synclinal strata on the eroded surfaces of the nearly perpendicular cliffs along the shore. There are almost no trees, but the mosses are in profusion and reindeer-moss abounds.

From Cape Charles the party went to Separation Point, between the White Bear and the Eagle rivers, and started in two small boats to explore the former. On the second day they came to a cataract, 60 feet in height. At the foot of the fall a camp was made and two of the party remained, while Mr. Perkins and Mr. Hite went on, for a distance of 190 miles from the river-mouth. The stream was shallow, with many rapids, and frequently the water would not float the boat. After passing a rapid (called *rattle* by the Labradorians) there was usually an expanse of water for some distance. These broad stretches are called *stiddies*. At fifty miles from the coast, the banks of the river rise into hills, 1,400 to 1,600 feet in height.

These are covered with spruce and tamarack, and occasional clumps of birch trees, and with beds of moss from a foot to three feet in depth. The dwarf cornel (*cornus canadensis*) abounds. The bed and sides of the stream were lined with erratic boulders, principally of labradorite. These increased in numbers as the river was ascended; the forest trees disappeared and the mosses became more scanty. After the first fifty miles there were no signs of animal life. The river source was in a chain of small lakes and on the banks grew willows, all bent down stream, the scratches on the bark indicating that the water had risen in the spring to a height of eighteen or twenty feet. In the lower portion of the river were peculiar semicircles of boulders of all sizes, transported by the ice in the spring and dropped in this fantastic position by eddies.

The Eagle and the Paradise rivers were next explored. The former is much deeper and narrower and more rapid than the White Bear and only half as long. The Paradise, which was ascended for forty miles, is very broad in comparison with the others, and it flows through a more level country, which has many plants not found in the hilly districts, and in the broad lakes there were water-birds not before seen on the trip. A dense growth of willow lined the banks. The water abounded with trout and salmon, and seals were found all along the river.

On the north side of Sandwich Bay is a mountain, 1,900 feet high, where several specimens of the caribou were secured. The principal rocks are hornblende, gneiss, syenite and granite. Veins of mica were found, besides iron ore in great quantities and malachite and many crystals of garnet. An outcropping of labradorite measured forty-two feet in length and three feet in width. Glacial striations with a southeasterly direction were discovered in several places around Sandwich Bay and on each of the rivers.

According to Mr. Hite, there are but few full-blooded Eskimos in southern Labrador, the inhabitants being a mixture of the Eskimos with various peoples, mainly English and Danish. To the question of the relationship between the Labrador and the Greenland Eskimos, Mr. Hite contributes an original observation on the flaps, or coat-tails, of the *timiak*, or coat. In Labrador, the front flap is but a few inches in length, while that at the back hangs down to the knee, and both are merely ornamental. The Greenland Eskimos, on the contrary, tie the two flaps together between the legs for protection against the cold. It occurred to Mr. Hite that the Eskimos, in travelling northward, conceived the idea of tying these flaps, and as the people parted company and split into sections, one retained the flaps for ornament and the other preserved them for practical purposes.

There have been clearer explanations. It is conceivable that a Greenlander may have discovered the art of warming himself by tying his coat-tails, but the invention was surely not beyond the scope of a Labrador genius, already provided with flaps. Another explanation suggests itself. It appears that the Greenland Eskimos are intensely practical, while those of Labrador have the artistic and poetical temperament. May not the flying flaps of the Labrador man be worn in mournful memory of the sectional split which divided him from his Greenland brother?

DETERMINATION OF LEVELS IN RUSSIA.—M. Venukoff communicates to the *Revue de Géographie*, for February, the results of the labours of the Russian General Staff in determining the level of European Russia. The final *catalogue* is the work of Col. Rylké, who has drawn up a list of 1,090 stations, the precise elevation of which was measured by several officers, with the same instruments and by the same method.

The lines of operation were distributed along the railways from the Baltic to the Black Sea and along the Ural River. At seven points the Russian operations were connected with the German and the Austrian.

The total length of the surveys exceeds 13,000 kilometres (8,080 miles), and more than 11,000 kilometres (6,835 miles) were twice measured. Solid monuments were set up at the chief stations of the railway network, to serve as fixed points for future levellings.

Such is the general low elevation of the surface that no one of the positions determined exceeds 338 metres (1,109 feet) above the sea, and the figures range for the most part between 110 and 150 metres (361 and 492 feet).

The most important geographical result of this great survey is the well-ascertained identity of level in the three seas, the Baltic, the Black, and the Sea of Azof; but it has yet to be determined whether this is the same as that of the ocean.

A YEAR'S OBSERVATIONS ON THE PAMIR.—M. Emil Muller sends from Tashkent to the *Société de Géographie*, of Paris, a note on the observations regularly made from September, 1893, to August, 1894, at the Russian post of the Pamir, at the confluence of the Murghab and Ak-Baïtal rivers, in N. Lat. 38° 8′ 30″.7, E. Long. 73° 57′ 0″.5.

The elevation of the post above the level of the sea is 3,700 metres (12,139 feet). M. Muller's table reads (with the addition of the values in degrees of Fahrenheit and decimals of an inch):

MONTHS.	MEAN TEMPERATURE.		PERCENTAGE OF CLOUDINESS.	PRECIPITATION IN		PREVAILING WIND.
	Cent.	Fahr.		Millim.	Dec. of in.	
September...	+8°	46°.40	32	2.0	.0787	South-west
October.....	−1°	30°.20	22	0.0	.0000	do
November...	−8°.1	17°.42	30	0.1	.0039	do
December...	−12°.7	9°.14	47	4.2	.1653	do
January.....	−24°.9	−12°.82	56	2.8	.1102	do
February....	−17°.8	−0°.04	50	0.9	.0355	do
March......	−5°.9	21°.38	44	0.7	.0276	North-east
April.......	+1°.4	34°.52	44	9.4	.3700	do
May........	+5°.4	41°.72	42	12.4	.4881	do
June........	+12°.1	53°.78	35	4.7	.1851	do
July........	+16°.8	62°.24	50	11.3	.4449	do
August.....	+13°.6	56°.48	19	0.0	.0000	

According to M. Muller, the Pamir post is, of all the points in the Russian empire, the one which has a climate most nearly resembling that of the Transbaikal region, but its winter is a little less cold and its summer somewhat cooler. The lowest temperature (—44° Centigrade=47°.20 below zero, Fahr.) was recorded in January and the highest (27°.5 Centigrade=81°.50 Fahrenheit) in July. Frosts occur in the early morning in every month. Notwithstanding the high percentage of cloudiness, the quantity of water which falls is surprisingly small, not more than one-seventh of that at Tashkent and only a third of that which falls in the oasis of Khiva, held to be the spot the most poorly supplied in the empire; and the wonder is what feeds the glaciers of the Pamir.

The south-west winds are never so strong as those from the north-east, which frequently blow in tempests; and in August the wind is always gentle and may blow from any quarter.

On the subject of the scanty glacier supply, M. Muller's translator remarks that it gives facilities for the study of ice-strata of a formation much more ancient than those of ordinary glaciers, particularly with regard to the cosmic dust contained in them and the extra-terrestrial materials added to the mass of our globe.

COTTON IN TURKESTAN.—Consul-General Jonas, of St. Petersburg, gives in the *Consular Reports*, No. 172 (for January, 1895), some figures on the growth of cotton in Russian Turkestan. The native variety is of poor quality. It was in 1883 that the American seed was introduced, and the crop from it the next year was 7,000 puds (252,000 lbs.), raised on 205 dessiatines (553 acres). In 1893 the product of American cotton had risen to 2,000,000 puds (72,000,000 lbs.) from 100,000 dessiatines (nearly 270,000 acres).

The quantities carried to the Russian market by the Trans-Caspian railway for the years 1888–1893 were: In 1888, 873,092 puds; in 1889, 1,470,503 puds; in 1890, 2,673,267 puds; in 1891, 2,626,110 puds; in 1892, 3,026,518 puds; in 1893, 3,588,025 puds. The Turkestan product of American and native cotton for 1893 was, therefore, 129,168,900 lbs. Mr. Jonas puts the entire consumption of cotton in European Russia, in 1892, at 13,740,518 puds, and in 1893 at about 2,000,000 puds less.

The table of Foreign Weights and Measures, prefixed to the present Report, would be improved by revision. The foreign words are often misspelled and misplaced, as in *arobe*, said to be used in Paraguay, where no such word exists; the true form, *arroba*, being printed two lines below.

There is a *pie*, of the Argentine Republic, and another, Castilian; not something to eat, but simply the *pié*, or foot, of about 11 English inches. The word should have been translated.

The Russian *dessiatine* is correctly valued at 2.6997 acres, but the Spaniards will learn with surprise that they also have a *dessiatine*, equivalent to 1.599 bushels.

The *klafter*, which is German and Austrian, is entered as Russian, and, generally, things are not what they seem.

TONKIN AND THE RED RIVER.—Lieut. Léon Escande, at a meeting of the Paris Geographical Society in February, described his ascent of the Red River in 1893 in the gunboat *Moulun*, at the season of low water as far as the Chinese frontier, 30 miles to the north of Lao-Kay. The rapids are caused, it appears, by the compression of the river between barrages of rock and banks of shingle, and there is always a deep channel with a swift current. The arrival of the *Moulun* in Yunnan was hailed with satisfaction by the Chinese merchants, and M. Escande, on a second voyage, made the distance from Haiphong to Lao-Kay and back to the sea in seven days. His conclusions were, that by works involving but a moderate outlay the river might be made navigable throughout the year, from the sea to Yunnan, and that by adopting a system of towage navigation might be opened without delay.

A JOURNEY TO MECCA.—M. Gervais Courtellemont went to Mecca in 1894, charged by the Governor-general of Algeria with a mission to the Sherif. He gave an account of his journey at a meeting of the Paris Geographical Society on the 7th of December.

The peril of the enterprise was lessened by the presence of a Mussulman companion, Hadj Akli, an Algerian who had already made twenty pilgrimages to the Holy City; but M. Courtellemont assumed the dress and the character of a poor Moslem, and spent the three days of the voyage from Suez to Jiddah on the deck of the steamer among the traders, and camel-drivers and slaves.

Jiddah, with its excessive humidity, its legions of mosquitoes and its scarcity of water, was an intolerable place, and the Turkish police watched the stranger with suspicion. It was some time before he was asked to dinner, and his clumsiness in handling rice with his fingers did not recommend him. When he got home, Hadj Akli scolded him: "You're not very bright," he said, "you don't even know how to behave yourself at table." In the night his host, Si Ali, came to express his fear that the Frenchman would never get back alive, if he persisted in going on; but two days later the start was made in the afternoon, so as to travel the fifty miles by night and reach Mecca in the morning.

The night was bitterly cold. At six o'clock in the morning the travellers entered the Holy City and picked their way through the myriads of sacred pigeons in the streets to the mosque, where M. Courtellemont made the prescribed circuits of the Kaaba and religiously kissed it. Neither then nor at any time during his stay does he appear to have been in danger.

He found the valley of Muna, where the innumerable victims are slaughtered for sacrifice, not by any means a repulsive place. The winds and a process of nitrification dispose of the remains.

The population of Mecca, exclusive of the garrison, is composed of 80 per cent. Indians and Javanese, 18 per cent. Arabs and 2 per cent. Turks; all supported and well supported by the pilgrims.

Those from Algeria alone numbered, in 1894, no less than 9,000, and each one was required to show, before he was allowed to start from home, that he had 1,000 francs in hand. All this money is left in the Hedjaz, for the pilgrims always return penniless.

The commerce of the Hedjaz is almost exclusively in the hands of the English, for whom the annual pilgrimage is a serious matter of business. M. Courtellemont reports the current belief of the Arabs that the English are on the point of conversion to the true faith, and then, they say, the empire of the world will belong to Islam.

The attempt at disinfection in Mecca, made in 1894 by the erection of a building for the purpose, has failed. The house was about 40 feet square, and wholly insufficient for disinfecting the garments of 250,000 pilgrims, the average yearly number, and it was built in the very centre of the city. It was hardly finished when it was destroyed by the more intelligent of the Arabs.

One by one the forbidden cities of the world begin to lose their glamour.

EXPLORATION IN BORNEO.—A scientific expedition to Western Borneo, undertaken at the close of the year 1893, returned to Europe in November, 1894. The leader of the party was the Swiss naturalist Büttikofer. His companions were Messrs. Van Velthuyzen, Nieuwenhuis, Hallier and Molengraaf. The results of their work are summarised in the *Geographische Nachrichten*, of Basel, 1894, No. 17, pp. 267–269.

The start was from Pontianak, just below the equator. The Kapuas River was ascended beyond Sintang to a garrisoned post named Smitau, which was selected as the central station for supplies and the storehouse of the collections.

Beyond Smitau the river, hitherto broad and stately, became contracted, and with a swifter current, and the country took a more richly varied aspect. Some mountain peaks, such as the Kenepai, were found to attain an elevation of 1,100 metres and more (3,600 feet). At Putus Siban, a village on the upper stream of the Kapuas, the Dutch Resident, Tromp, had called together a number of the chiefs to explain to them the objects of the expedition, and display the stuffed birds and the specimens of snakes and fishes and beetles already obtained. The chiefs were interested and readily offered their support. From this point Büttikofer and Hallier proceeded to the foot of Kenepai, to make zoological and botanical excursions on the mountain. The neighborhood abounded with orang-utans, and on the very first morning Büttikofer, walking near the house in his slippers and night-dress, shot one of them. The six weeks spent on the mountain enriched the collections, and the Dyak children were very useful in hunting for beetles.

Returning to Smitau, Büttikofer's next excursion was to the upper Mandai River, which he ascended, at first in a steam launch and then in a rowboat, as far as Nanga Raun, a little mountain village, consisting of two great houses. One of these rested on no fewer than 568 piles, 5 metres (16 feet) in height; it was 150 metres (492 feet) in length, and enclosed the homes of 39 families.

From this village the next stage led to the mountain Lyang Kulung, reported to be about 6,000 feet high. It proved to be only about 3,700 feet. At the base of it, in a perpendicular wall of rock, was a grotto, where there were many rhinoceros tracks. The rainy weather interfered with the zoological collections, but the plants were all the richer and more numerous.

It was difficult to work through the forest, where the roots of the trees and bushes formed a labyrinth six feet in height above the ground; and everything was covered with a layer of moss so thick that branches not larger than one's finger had the apparent diameter of a man's body. Six weeks were spent on Lyang Kulung.

The original plan was to push to the centre of the island and even to cross it, but the difficulties were many, and the employment of force against the natives was out of the question. Mr. Büttikofer was satisfied with what had been accomplished and returned to the coast.

Further explorations are reported in *Petermanns Mitteilungen, 41 Band, II.* After the return of Messrs. Büttikofer and Hallier, Prof. Molengraaf terminated his geological work by crossing the southwestern part of the island. From Sintang, at the confluence of the Kapuas and its tributary, the Melawi, he ascended the latter to Uln Kowin, whence he crossed the watershed to the source of the Katingan River and descended this to Mendawei, where the river enters the Java Sea. The journey occupied the time from the 15th to the 30th of October. Prof. Molengraaf returned to Batavia by way of Banjermassin.

Shortly before this Capt. Van der Willigen, of the Netherlands-India General Staff, crossed the watershed between the eastern and southern coasts. He also followed the Kapuas and Melawi Rivers, and the Ambalau, the affluent of the latter on the left, as far as the limit of navigation, and from there travelled by the Dayak footpath over a pass of 1,000 feet in height. A little more than a mile from the source of the Benjawe, which flows into the Ambalau, he came to the source of the Mahiko, a tributary of the Kahayan, which empties into the Java Sea. At Tumbang Anoi he met the Dutch Controllers of East and West Borneo, who were holding a conference with Dayak chiefs in order to settle a number of tribal feuds. He then followed the Kahayan for a time, turned eastward to the Barito, and made his way to Banjermassin. His journey lasted from April 11 to the 25th of July.

THE RUSSIANS IN ABYSSINIA.—A scientific expedition to Abyssinia has been sent out by the Russian Geographical Society.

The leader is Lieut. Nicholas Leontief, of the Imperial Guard, and the second in command is Capt. Zvyagin, of the artillery, who will make the astronomical observations and map the country. Dr. Elizeef and M. Agapof will study the geology and make collections in natural history.

From Obok, the French post on the bay of Tajurra, the party will cross to Ankober and Antotto, and thence into Northern Abyssinia and the Sudan.

THE NILE AND THE CORVÉE.—Sir C. C. Scott-Moncrieff, who must be supposed to have spoken with knowledge, opened a lecture at the Royal Institution, on the 25th of January, with these words:

> I am to speak to you to-night of the Nile, and I think I may fairly say it is the most famous river in all the world; famous through all the ages, for the civilization that has existed on its banks; famous for its mystic fabulous rise, about which so many sages and philosophers have pondered; famous for its length, traversing one-fifth the distance from pole to pole; famous, and apparently destined to be famous, for the political combinations that ever centre around it.

A little further on, it is said that the whole distance by river from the Victoria Nyanza to the sea is about 3,500 miles. If the length of the Nile, so understood, is one-fifth of the distance from pole to pole, the whole distance must be five times 3,500 miles=17,500 miles; a measurement fit to disturb the minds of men and make Sir C. C. Scott-Moncrieff not less famous than the Nile.

Of several other strange statements in the lecture, the following, on a subject interesting to all men, deserves notice:

> I have already mentioned the cruel hardships of the corvée, the serf army of 85,000 men, who were employed in the canal clearances from January to July, nearly half the year. I believe this institution was as old as the Pharaohs, and it was not easy to abolish it. But of course it went sorely against our British grain. Little by little we got money to enable us to pay our labour. By an annual outlay of £400,000 this spring corvée has entirely ceased since 1889, and now the Egyptian labourer carries out these clearances in as free a manner as his brother in Middlesex, and gets paid for his work.

On the 29th of March, 1891, the British Government published a similar statement in a letter from Sir C. C. Scott-Moncrieff, in these words:

> In 1884, the forced, unfed and unpaid labour of the peasantry amounted to 85,000 men working for 60 days. In 1890, perhaps for the first time in all history, there was no corvée in Egypt.

On the 26th of April, 1893, Mr. T. G. Bowles asked the Under Secretary of State for Foreign Affairs whether the system of forced labour, known as corvée, had subsisted during the ten years' English occupation of Egypt, and had not yet been abolished, and whether Her Majesty's Government proposed to take any measures for the abolition of this form of involuntary labour.

Sir E. Grey answered that it had so subsisted, and added:

> Her Majesty's Government do not propose to interfere.

In April, 1894, the Parliamentary Report on Egypt stated (p. 15):

> In Upper Egypt 32,720 men and 1,672 sheikhs were called out for an average of fifty days. In Lower Egypt 49,059 men and 3,164 sheikhs were called out for an average of eighty-two days.

The whole of these men were called out in the usual manner, Pharaonic, Ptolemaic and British, by means of the mudirs, or native governors.

It is an easy matter to calculate, from the figures given in the Blue Book for 1894, the amount of labour, forced, unfed and unpaid, extorted from the Egyptian peasantry by an institution sorely against the British grain.

The men called out in Upper Egypt were 34,392, whose work for 50 days represents	1,719,600 days.
The number for Lower Egypt was 52,223 men for 82 days, equal to	4,282,286 "
Total	6,001,886 days.

Sir C. C. Scott-Moncrieff and the British Government do not seem to understand each other.

THE DEATH OF EMIN PASHA.—It was in October, 1892, that Emin Pasha arrived with a small force at Kinena, about 150 miles to the northeast of Kibonge, on the right bank of the Congo. At Kinena, Said ben Abedi, who accompanied him, proposed to go on to Kibonge, leaving Emin to take some rest with his men. This was done, and Emin busied himself for two or three weeks, according to the entries in his journal, in arranging his collections. The last entry bears the date of October 27, and it is supposed that he was killed the next day.

Mr. R. Dorsey Mohun, U. S. Agent in the Congo Free State, contributes to the *Century*, for February, an account of Emin's death, written down from the confession of his murderers. Mr. Mohun, while at Kassongo in April, 1894, was informed by his sergeant Omari that next day a caravan would arrive, and that in it were the two men who had killed Emin Pasha. The men, Ismailia and Mamba, Arab slaves, were arrested on arrival, and Mr. Mohun went with Omari to the guard-house to take their confessions.

They professed innocence, and Mr. Mohun sent Mamba to a separate room with Omari, instructing the latter to return in half an hour and report that Mamba had confessed that he and Ismailia had had a hand in the killing. Meanwhile Mr. Mohun questioned Ismailia, but to no result. Omari returned, as agreed upon, with Mamba's confession, and then Ismailia fell on his knees and begged for mercy, declaring it was true that he had helped to kill Emin, but that he only obeyed the orders of a big chief. Mamba was then brought back, and the story was told by Ismailia.

He and Mamba went with Said ben Abedi to the Chief Kibonge. Two days after they arrived, Mamba was sent back with a letter to Emin, and in the night Kibonge sent Ismailia with a letter to the Chief Kinena. After twelve days' journey Ismailia arrived, only ten minutes behind Mamba. The letter to Kinena was an order to kill Emin, and the two carriers were to give their assistance.

Emin was found sitting on the veranda of Kinena's house, writing at his table. The letter brought by Mamba was in front of him, and he was in good spirits at the thought of a start the next morning for Kibonge. Kinena came up with a few men who carried guns, and stood near the pasha, reading the letter which Ismailia had brought. When he had finished, he said to Emin: "Pasha, you leave to-morrow for a long march. Send your men into the plantations to get all the provisions you need, and you must not think of paying me for them. They are my present to you in return for the many things you have given to me and my women." Emin thanked him and had the men called by bugle. They were armed, and Kinena suggested that the arms should be left in the veranda, as the women in the plantations might be frightened by the sight of guns. After the men were gone, Kinena talked for a while with Emin and then made a sign to Mamba and Ismailia, who seized the pasha by the arms. He asked what they meant, and Kinena, looking at him, told him that he had to die. Emin answered: "What do you mean? Who are you that you can give orders for a man to die?" Kinena replied: "I do not give the orders. I receive them from my chief, Kibonge."

Three of Kinena's men came up and helped to hold Emin. He then said it was a mistake, and that he had a safe-conduct from Kibonge. Kinena then showed his letter, with the order for death. Emin read it, and said: "Well, you may kill me, but there are many who will avenge my death." He spoke of his child, two years of age, and asked that she should be sent to Said ben Abedi.

Kinena made a sign and the pasha was laid on his back, with a man at each arm and leg. Ismailia held his head, and the fatal stroke was given by Mamba. Emin's head was sent to Kibonge; his body was thrown into the bush.

Mr. Mohun took Ismailia and Mamba to Nyangwe. On the way Ismailia gave information that led to the arrest of another of Emin's murderers, a man named Ferrani, who broke down when confronted with Mamba and Ismailia and confessed his crime. The three were hanged in May, 1894, in company with the Arab chiefs who had massacred the Hodister expedition.

The little girl and her mother are at Kibonge, now a post of the Congo State, and the child will be cared for by the State.

Mr. Mohun does not believe that Said ben Abedi or Tipu Tip had anything to do with the death of Emin Pasha.

A LETTER FROM DR. DONALDSON SMITH, dated December 14, on the Shebeyli River, has been received by the Associated Press. He had penetrated five days' march beyond Sheikh-Husein, when he was met by a large armed force of Abyssinians, who had orders from the Emperor Menelik to stop the advance of the party. Dr. Smith tried to evade the order by seeming to comply with it for a short distance, and then resuming the original line of march; but in a few days he was confronted by the same force and ordered to return.

In his letter he reports a rich discovery made "down South." He had heard of a river that ran under a mountain where the god Waco had carved a palace for himself. He pushed in the direction of this mountain and discovered the most beautiful subterranean passage it would be possible to imagine:

> A large tributary of the River Juba had carved a way for itself under a mountain a mile in length. On both sides of the stream were great vaulted chambers from twenty-five to forty feet high and supported on massive columns. The columns were most superbly carved by the waters, and many of them, uniting, would form long arched passages. I have named these the Caves of Tyndlawn. I believe them to be the most remarkable caves of the kind in the world.

MT. RUWENZORI.—The London *Times*, of March 15, reports the substance of a lecture by Mr. G. F. Scott Elliot on his botanical exploration of Mt. Ruwenzori, and the country to the north of the Albert Edward Nyanza.

Mr. Elliot entered the region by the route from Mombasa to Uganda. The country northeast of the Victoria Lake he described as a rolling grassy plain, 6,000 feet above the sea-level and well adapted for colonization. He went west from the Victoria Nyanza to Mount Ruwenzori, which is said to have an altitude of 18,000 feet, and spent four months in exploring that district under the great disadvantage of a dense cloud hanging over the mountain the greater part of the day, which often prevented the party from seeing more than 50 feet ahead. The sides of the mountain were clothed at the base with a thick growth of trees resembling the laurel of the Canary Islands; above that bamboos to the 10,000 feet level; and above that again what the explorer could only liken to a Scotch peat moss, into which the traveller sank at every step a foot or more. Large trunks like those of *erica arborea* of the Canary Islands, but indicating trees 80 feet high, were noticed. Among other plants noticed were a viola, a cardamine, a gigantic lobelia, attaining a height of 5 feet or 6 feet, and a species of *hypericum* resembling that found in the Canaries; indeed, the similarity of the flora to that of the Canary Islands was remarkable. He ascended Ruwenzori to the height of 13,000 feet. Above 10,000 feet some of his porters could not sleep without suffering, and he climbed the other 3,000 feet with a reduced number of men. Evidences of animal life were found up to 7,000 feet, and among the animals were a species of water-buck, a new chameleon, a new snake and several new insects.

Mr. Elliot discovered that the Kagera River was navigable, and he thought that the route from the mouth of the Zambezi, by way of Lakes Nyasa and Tanganika to the Victoria Nyanza, would do more for international interests than a railway from Mombasa.

THE CONGO RAILWAY.—*Le Mouvement Géographique*, of March 5, publishes a letter of Father de Hert, of the Society of Jesus, describing a journey made by himself and five Sisters of Charity on the Congo Railway on the 23d of July, 1894.

He was surprised at the magnitude of the work and at the difficulties encountered and surmounted in laying the road-bed and in carrying it through ravines and hills and valleys.

He mentions particularly the cuttings in the Mpozo ravine, where the line is suspended on the side of the mountain, the bridge over the river, the numerous curves described in climbing the Palaballa and the viaduct across the ravine of La Chute sustained by piers 100 feet high, of solid masonry.

On Palaballa the travellers could see the road turning and returning on itself seven times.

It took fourteen hours to accomplish the journey from Matadi to the Monolith, a distance of 40 miles. The coal did not burn well, the train ran off the track in one place, and in another there was a collision with a freight car; but nobody was hurt.

The editor of the *Mouvement Géographique* remarks, truly enough, that the caravans required three days to make these 40 miles and that, before long, the fourteen hours will be reduced to three or four; and he presents, in a Supplement, a map showing on a scale of 1:250,000 the first 175 kilometres (109 miles) of the road, from Matadi to Kimpesse.

THE VON GÖTZEN EXPEDITION.—Additional details concerning this expedition (BULLETIN No. 4, 1894, pp. 557–560) are published in the *Mouvement Géographique*, of February 17, as given by Count von Götzen.

The country of Ruanda is well populated by a fine race of Galla origin. It was formerly rich in herds of cattle, remarkable for their immense horns, but most of them were carried off by a plague a few years ago. The title of the Chief of Ruanda is *Kigeri*. He possesses a dozen residences which he occupies in succession. The explorers met him on the upper Kagera River, again on the extreme frontier of the Congo State, and once more not far from the Kivu Lake. He treated them always with hospitality. The Arabs have frequently tried to establish themselves in Ruanda but without success, and in all this region, including Karagwe, they were not seen by the expedition, except at Kafuro, where three or four Tabora traders are settled.

Lake Kivu lies almost midway between Tanganika and Albert Edward, and wholly within the Congo State. It is nearly oval in form, with its greater extension from north to south, and it is shut in on the east and the west by the cliffs of the great *fault*, which encloses also the Albert Edward and the Tanganika. In the southern part of the lake is the large Island of Kuisui, almost equally divided by the parallel of 2° S. Lat.

On the 27th of June, 1894, the expedition climbed the steep slopes of the rocky crest, which divides the streams of the Tanganika basin from those of the Congo, and constitutes the mountain knot that marks the limit of the basin of the ancient interior sea. Three months were spent in the march through this unknown country of the Kivu Lake. The first part of the journey was through a mountainous region, sometimes at an elevation of nearly 9,000 feet, and for four days the men suffered with the cold, the mercury going down at night to 37 degrees. They passed through forests of gigantic bamboos, but the land was thinly peopled by the Buttenbo. The forest limit was attained in E. Long. 28° 10′.

The vegetation was not so dense as in the part described by Stanley and the foliage was nowhere thick enough to shut out the rays of the sun, while picturesque glades diversified the landscape. The inhabitants are called Bulegga. The first important village was Mkashi, with a population of 5,000, under a negro chief named Kawareware, who spoke Arabic. He was astounded at the sight of white men arriving from the East, and eagerly welcomed them with assurances of his complete submission. He told them that the Msenge (Belgians) were hunting down the Arab chiefs.

Mkashi is in the forest on a southern affluent of the Lova River. This, at the point where it was crossed, was already a considerable stream, 1,500 or 1,600 feet in width. It flows from the east and descends from the plateaux by a succession of rapids. Farther down, it receives two affluents from the northeast, the Oso and the Luvuto.

In the latter part of the march the expedition fell short of provisions, but it was relieved by a party under Lieut. Simons, sent forward from Kirundu to meet the white men reported as on their way from the East.

From Kirundu, the descent of the Congo was a kind of triumphal procession till the Germans embarked on the Portuguese mail steamer on the 19th of December.

Count von Götzen's crossing of Africa is, according to the *Mouvement Géographique*, the quickest of the thirteen so far accomplished. It was made in 11 months and 8 days.

ESCAPE OF SLATIN BEY.—Slatin Bey, who was captured with his force of 700 men by the Mahdi, in 1883, and has ever since been a prisoner in the Sudan, escaped from Omdurman on the 20th of February and reached Cairo on the 19th of March.

Details of the arrangements for the rescue of Slatin are kept back, out of consideration for the Europeans still in the hands of the Khalifa.

Two Arab guides, with their camels, were in readiness outside of Omdurman on the evening of February 20. Slatin joined them, and the flight began. In 21 hours the fugitives made 120 miles, in a straight line from the starting point, but actually much more, for they had kept under the lee of a range of hills to avoid discovery. They were pursued and twice, while they lay hidden, saw their enemies pass by to the northward. They left the direct route, for greater safety, and turned to the north-east. Once they halted for five days in the desert.

On the twenty-fourth day Slatin reached Assuan, where he was beyond reach.

Rudolph Slatin is an Austrian, 38 years of age, and half his life has been spent in the East. In 1882 he was Governor of Darfur, the province first affected by the Mahdi revolt, and his heroic valour in fighting the insurgents made him famous throughout the Sudan. He was treated with alternate kindness and cruelty by his captors.

He reports that the power of the Khalifa is waning, but that the military organization is unbroken and can only be crushed by a strong force. The position and movements of the Italians cause great anxiety at Omdurman.

Notwithstanding all he has endured, Slatin is full of vigour and energy and in apparently perfect health.

SCIENTIST.—There has lately been discussion in England concerning the unlucky word, *scientist.* Prof. Huxley, in his haste, puts it on a level with *electrocution.* Sir John Lubbock also condemns the word and would replace it by *philosopher.* Lord Kelvin and Lord Rayleigh prefer *naturalist*, in its wider sense; and Dr. Albert Günther suggests that *scientist* be reserved to denote the dabbler in great scientific questions. *Nature*, of January 10 (p. 253), solemnly records its protest against the offender:

> The word is never allowed knowingly to appear in contributions to NATURE.

Mr. Grant Allen does not defend *scientist*, but he considers with reason that, as languages grow irresponsibly, it is pedantry to object to a new word when it is used by a majority of persons. Mr. Alfred Russell Wallace holds that the word is useful, and that the objection to it comes too late in the day.

This is a sensible conclusion. The word will keep its place in the language, outside of *Nature*, and it must grieve every one to think that Dr. Günther himself may live to be known as a scientist.